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## **ABSTRACT**

The invention pr vides recombinant plasmids in DNA sequences coding for human containing invention further preproparathyroid hormone. The microorganisms, for example E. provides **5**. The invention also transformed by these plasmids. provides a plasmid for insertion into yeast and a transformed yeast in which the plasmid contains DNA coding for parathyroid hormone. Parathyroid hormone is then secreted by the transformed yeast. Further the polypeptides having alternate provides invention parathyroid hormone activity, including PTH analogs, fragments and extensions, and provides alternate leader sequences and secretion signal sequences which can be used in the present invention. Finally, there are provided methods for purification of the secreted PTH hormone and/or derivatives.